

## Case 2926

***Trichia* Hartmann, 1840 (Mollusca, Gastropoda): proposed conservation; and TRICHIINAE Ložek, 1956 (Mollusca): proposed emendation of spelling to TRICHIAINAE, so removing the homonymy with TRICHIIDAE Fleming, 1821 (Insecta, Coleoptera)**

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**Abstract.** There are two purposes for this application. The first is to conserve the name *Trichia* Hartmann, 1840 for a genus of European pulmonate gastropod molluscs (family HYGROMIIDAE). The name is currently much in use but is a junior synonym of the disused name *Trochulus* Alten, 1812 and a junior homonym of *Trichia* De Haan, 1839 in Crustacea (Brachyura, Indo-West Pacific crabs). It is proposed that the name *Zalasius* Rathbun, 1897, which was used as a replacement name for *Trichia* De Haan for a period, should be adopted as valid for the crustacean genus. ZALASIINAE Serène, 1968, based on *Zalasius*, becomes the valid name for the crustacean family-group taxon. The second purpose is to remove the homonymy between the family-group names TRICHIIDAE Fleming, 1821 (Coleoptera, Palaearctic dung beetles) and TRICHIINAE Ložek, 1956 (Gastropoda) by emending the stem of the name *Trichia* Hartmann, 1840, on which the molluscan name is based, to give TRICHIAINAE.

**Keywords.** Nomenclature; taxonomy; Gastropoda; Crustacea; Coleoptera; HYGROMIIDAE; Brachyura; SCARABAEIDAE; TRICHIIDAE; TRICHIAINAE; ZALASIINAE; pulmonates; crabs; beetles; *Trichia*; *Zalasius*; *Trichius*.

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1. De Haan (1841, pp. 109–110) described the new brachyuran (crab) genus *Trichia*, containing the single new species *T. dromiaeformis*, in the fifth fascicle of the crustacean volume of von Siebold's *Fauna Japonica*. He placed the genus in the new family Trichidea, the spelling of which was corrected to TRICHIIDAE by Ortmann (1893, p. 419). In 1953 Holthuis (pp. 36–47) showed that the two plates (pl. 29, fig. 4, ♂ and ♀; pl. H) illustrating De Haan's description of *Trichia dromiaeformis* appeared in the fourth fascicle of the work, which was published in 1839. On both plates the new generic and specific names were given in the legend, and pl. H also carried the family name. All three names thus date from 1839.

2. A second species of *Trichia* De Haan, 1839 was described in 1906, and between 1938 and 1969 four more species were established in the genus. The name *Trichia* was universally used in the Crustacea until about 1930. Rathbun (1897, p. 166) proposed the replacement name *Zalasius*, believing *Trichia* De Haan to be preoccupied by the scarabaeid beetle name *Trichius* Fabricius, 1775 (see para. 9 below), but her action was mostly ignored. In 1930 Iredale (p. 175) considered *Trichia* De Haan to be a junior homonym of *Trichia* Hartmann, 1840 in Mollusca (see para. 3 below) as he

thought 1841 was the publication date of De Haan's genus; he proposed the replacement name *Macneillena*. In the same year, McNeill & Ward (1930, pp. 374–375) noted that *Zalasius* Rathbun, 1897 was a senior objective synonym of *Macneillena* Iredale, 1930 and adopted the name *Zalasius* for the genus. They were almost immediately followed in this by other carcinologists and the four species described between 1938 and 1969 were all established in *Zalasius*. This was the name almost universally used until Guinot (1976, pp. 109–110), in her history of the genus, realised that *Trichia* De Haan was published in 1839 and was senior to *Trichia* Hartmann, 1840; she therefore reintroduced De Haan's name. Guinot (1976) recorded that the taxonomic position of the genus had hitherto been uncertain and she assigned it to the subfamily TRICHIINAE of the family XANTHIDAE. Serène (1968, p. 62) had earlier introduced the name ZALASINIÆ for the subfamily in which he placed *Zalasius* Rathbun.

3. In Mollusca the genus *Trichia* was proposed by Hartmann (1840; see Heppell, 1966 for the dates of publication of Hartmann's work) and applies to a group of European species of HYGROMIIDAE, some of which are among the most common European pulmonate gastropod species. Under Article 12.2.5 of the Code the name *Trichia* Hartmann is available from 1840 (p. xiii, footnote) by the inclusion of two nominal species, one of which was *Helix hispida* Linnaeus, 1758 (p. 771). On p. 41 (1841) Hartmann described the genus. Herrmannsen (1849, p. 587) designated *H. hispida* as the type species of *Trichia* Hartmann. *Trichia hispida* (Linnaeus, 1758) is widespread and fairly common in natural and disturbed habitats. Other relatively common species now included in *Trichia* Hartmann are *T. sericea* (Draparnaud, 1801), *T. striolata* (C. Pfeiffer, 1828) and *T. villosa* (Draparnaud, 1805). About 15 additional European species of *Trichia* sensu stricto are referred to in the literature; if the genus is interpreted more widely, which is usually the case, the number of species increases with a further 10 taxa (see Kerney & Cameron, 1979; Kerney, Cameron & Jungbluth, 1983). The subfamily name TRICHIINAE, based on *Trichia* Hartmann, was introduced by Ložek (1956, p. 200).

4. The earlier use of the name *Fruticicola* Held, 1837 for *Helix hispida* Linnaeus, 1758 and its allies came to an end with the publication of Thiele's (1931) *Handbuch der systematischen Weichtierkunde*, and Zilch's (1960) treatment of the Euthyneura. Zilch (p. 642) indicated that *Fruticicola* has to be classified with the family HELICIDAE, subfamily BRADYBAENINAE. The type species of the genus, designated by Herrmannsen (1847, p. 450), is *Helix fruticum* O.F. Müller, 1774.

5. The oldest synonym of *Trichia* Hartmann, 1840 (Mollusca) is *Trochulus*, a name first introduced by Chemnitz (1786, p. 52, pl. 122, figs. 1057, 1058). Alten (1812, p. 44, pl. 3, fig. 6) included *Trochulus* in the synonymy of *Helix hispida* Linnaeus, 1758. The name *Trochulus* appeared, also in synonymy, in Férussac (1821, p. 44 (quarto)/p. 48 (folio)), Beck (1837, p. 20), Gray (1847, p. 173) and H. & A. Adams (1855, p. 214). The first use of *Trochulus* sensu Chemnitz as a valid name was by Lindholm (1927, p. 122), who credited it to Chemnitz and proposed the family name TROCHULINAE, but in Direction 1 (April 1954) Chemnitz's work was rejected by the Commission as non-binominal and placed on the Official Index. *Trochulus* has occasionally been used as the valid name for the mollusc genus during the 20th century (see Kennard, 1943, p. 118 and Janus, 1958). However, it was used less than 10 times between 1946 and 1958, and after 1958 it has been completely replaced

by *Trichia* Hartmann (including the subsequent editions of 1965, 1968 and 1982 of Janus's work). The name *Trochulus* would not have been available from Alten (1812) under the 1961 Code but, following the introduction of Article 11d in the 1964 Code (Article 11.6.1 of the current Code), Alten's (1812) mention of the name in synonymy and its adoption by some later authors retrospectively rendered the name available from this author and date, with *Helix hispida* (Linnaeus, 1758) as the type species. I propose that the disused name *Trochulus* Alten, 1812 be suppressed.

6. In 1848, Gistel (p. xi) incorrectly (in terms of modern Codes) thought that *Trichia* Hartmann, 1840 (Mollusca) was a junior homonym of the scarabaeid beetle name *Trichius* Fabricius, 1775 (see also paras. 2 and 9) and proposed the replacement name *Erethismus*. To the best of my knowledge *Erethismus* has never been adopted and is completely unknown in the literature.

7. The name *Trichia* Hartmann, 1840 is widely used in molluscs for many species, some of which are very common, in a well investigated area. To introduce its synonym *Trochulus*, which has not been recognised for more than 40 years, would result in a generic name which is wholly unfamiliar to most current malacologists and would cause nomenclatural confusion in numerous molluscan species. Such a change would serve no purpose and would render a disservice to all those with an interest in malacology; it would also affect those working in applied fields such as biology, ecology and conservation. Not all workers would accept the change and, as a result, there would be two names simultaneously in use for the genus. In contrast, the genus *Trichia* De Haan, 1839 (Crustacea) includes few species (about six), all of which are rather rare and occur in a relatively poorly studied region (the Indo-West Pacific), and consequently the literature on them is not extensive. The replacement name for the crustacean genus, *Zalasius* Rathbun, 1897, was consistently used for over 40 years (1930–1976; see para. 2 above). It seems that greater harm would be done by keeping the name *Trichia* in Crustacea than if it is retained in Mollusca. Dr Danièle Guinot (*Laboratoire de Zoologie (Arthropodes), Muséum National d'Histoire Naturelle, Paris*) and Dr P.K.L. Ng (*Zoology Department, National University of Singapore*), who have both been working with the crustacean genus and continue to do so, have said (in litt.) that they would not object to the reintroduction of the name *Zalasius*. In 1966 Holthuis (pp. 122–124) proposed that it be universally adopted, together with the family name ZALASIIDAE Serène, 1968. I therefore propose that *Trichia* De Haan, 1839 (Crustacea) be suppressed to conserve *Trichia* Hartmann, 1840 (Mollusca).

8. In passing I note that the new genus of Chinese Eocene dipteran named *Trichia* by Hong (1981, p. 28) was subsequently renamed *Iyaiyai* by Evenhuis (1994).

9. The insect family-group name TRICHIIDAE Fleming, 1821 (p. 50, published as Trichiidae) was based on the scarabaeid beetle genus *Trichius* Fabricius, 1775 (p. 40). The genus had seven originally included species, among them *Scarabaeus fasciatus* Linnaeus, 1758 (p. 352) from Europe, the type species by subsequent designation by Latreille (1810, p. 428). The name TRICHIIDAE is well used at family, subfamily (as a division of CETONIIDAE or SCARABAEIDAE) and tribal levels. A search of *Zoological Record on CD*, vols. 115–135 (for 1978–1999), showed 42 publications in which TRICHIIDAE Fleming has been used. During the same period the molluscan subfamily name TRICHIINAE Ložek, 1956 (based on *Trichia* Hartmann, 1840) has been used only once (see Pazylov & Schileyko, 1992). I believe that there

is good reason not to change the insect name. I therefore propose that the molluscan name be emended to TRICHLAINAE, while leaving the insect name TRICHIIDAE Fleming, 1821 unaltered.

10. The name *Trichia* was introduced by von Haller, 1768 (pp. 114–116, 190, pl. 48) for 13 species of 'fungi'. It was adopted by Hoffman (1790), who referred to von Haller's work and illustrations, and is now in use for a well known genus of Myxomycetes or Mycetozoa (slime fungi or slime moulds). This is a group of protistan organisms which until recently were treated as fungi (see Stephenson & Stempen, 1994) and their study has been, and still is, carried out by botanists, particularly mycologists. The names used in this group can come within the scope of the Code of botanical nomenclature and that of zoological nomenclature (see Loeblich & Tappan, 1964; Corliss, 1995), but are nearly always dealt with under the former. *Trichia* von Haller is based on the type species *Trichia varia* (Persoon, 1794) (p. 90), described from Germany, and is the basis of a family established by Fries (1821, p. L) as the group Trichocisti in the Trichioidei, which is usually cited as Trichiaceae (see, for example, MacBride & Martin, 1934; Martin & Alexopoulos, 1969; Stephenson & Stempen, 1994) but occasionally as TRICHIIDAE. The order Trichiales contains the Trichiaceae and related taxa. The generic name *Trichia* von Haller is in wide use in the Myxomycetes without ambiguity or any confusion with animal taxa and there is no case for treating the name as competing in homonymy with *Trichia* Hartmann in Mollusca; to do so would simply cause confusion.

11. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power:
  - (a) to suppress the following names:
    - (i) *Trochulus* Alten, 1812 (Mollusca) for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
    - (ii) *Trichia* De Haan, 1839 (Crustacea) for the purposes of both the Principle of Priority and the Principle of Homonymy;
  - (b) to rule that the name *Trichia* Hartmann, 1840 (Mollusca) is not rendered invalid by the existence of *Trichia* von Haller, 1768 in Myxomycetes;
  - (c) to rule that for the purposes of Article 55.3.1 of the Code the stem of the generic name *Trichia* Hartmann, 1840 (Mollusca) is TRICHIA-;
- (2) to place on the Official List of Generic Names in Zoology the following names:
  - (a) *Trichia* Hartmann, 1840 (gender: feminine), type species by subsequent designation by Herrmannsen (1849) *Helix hispida* Linnaeus, 1758 (Mollusca);
  - (b) *Zalasia* Rathbun, 1897 (gender: masculine), type species by monotypy of the replaced nominal genus *Trichia* De Haan, 1839, *Trichia dromiaeformis* De Haan, 1839 (Crustacea);
  - (c) *Trichius* Fabricius, 1775 (gender: masculine), type species by subsequent designation by Latreille (1810) *Scarabaeus fasciatus* Linnaeus, 1758 (Coleoptera);
- (3) to place on the Official List of Specific Names in Zoology the following names:
  - (a) *hispida* Linnaeus, 1758, as published in the binomen *Helix hispida* (specific name of the type species of *Trichia* Hartmann, 1840) (Mollusca);

- (b) *dromiaeformis* De Haan, 1839, as published in the binomen *Trichia dromiaeformis* (specific name of the type species of *Zalasius* Rathbun, 1897) (Crustacea);
- (c) *fasciatus* Linnaeus, 1758, as published in the binomen *Scarabaeus fasciatus* (specific name of the type species of *Trichius* Fabricius, 1775) (Coleoptera);
- (4) to place on the Official List of Family-Group Names in Zoology the following names:
- (a) TRICHIIDAE Fleming, 1821, type genus *Trichius* Fabricius, 1775 (Coleoptera);
- (b) TRICHIAINAE Ložek, 1956, type genus *Trichia* Hartmann, 1840 (spelling emended by the ruling in (1)(c) above) (Mollusca);
- (c) ZALASIINAE Serène, 1968, type genus *Zalasius* Rathbun, 1897 (Crustacea);
- (5) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
- (a) *Trochulus* Alten, 1812 (suppressed in (1)(a)(i) above) (Mollusca);
- (b) *Trichia* De Haan, 1839 (suppressed in (1)(a)(ii) above) (Crustacea);
- (c) *Erethismus* Gistel, 1848 (a junior objective synonym of *Trichia* Hartmann, 1840) (Mollusca);
- (d) *Macneillena* Iredale, 1930 (a junior objective synonym of *Trichia* De Haan, 1839 and of *Zalasius* Rathbun, 1897) (Crustacea);
- (e) *Trichia* Hong, 1981 (a junior homonym of *Trichia* De Haan, 1839 and of *Trichia* Hartmann, 1840) (Diptera);
- (6) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the following names:
- (a) TROCHULINAE Lindholm, 1927 (invalid because the name of the type genus, *Trochulus* Alten, 1812, has been suppressed in (1)(a)(i) above) (Mollusca).
- (b) TRICHIIDAE De Haan, 1839 (invalid because the name of the type genus, *Trichia* De Haan, 1839, has been suppressed in (1)(a)(ii) above) (Crustacea);
- (c) TRICHIINAE Ložek, 1956 (spelling emended to TRICHIAINAE by the ruling in (1)(b) above) (Mollusca);

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